ENVIRONMENTAL ASSESSMENT
(OR-030-01-008)
AMENDED

BLM OFFICE: Vale

PROPOSED ACTION: Corbin Creek Pipeline.

LOCATION OF PROPOSED ACTION:
Generator Shed: T.33S., R.43E., Sec. 33 NW1/4NE1/4
Water Storage Tank: T.34S., R.43E., Sec. 2 NW1/4NW1/4

APPLICANT: Jackies Butte Summer Allotment (#01101) Permittees.

CONFORMANCE WITH APPLICABLE LAND USE AND ACTIVITY PLAN

This proposed action is subject to the following land use plan:
Names of Plan: Southern Malheur Management Framework Plan (1983)
Southern Rangeland Program Summary (RPS) (1984)
Jackies Butte Allotment Management Plan (1974)

The plans have been reviewed to determine if the proposed action conforms with the land use plan terms and conditions as required by 43 CFR 1610.5

REMARKS

This project is in conformance with the MFP and RPS and the objectives of providing a consistent and dependable water source to improve and maintain vegetative and soil conditions to benefit wild horses, watershed, wildlife and livestock.

The use of practices to facilitate the implementation of grazing systems should consider the kind and class of animals managed, indigenous wildlife, wild horses, the terrain and the availability of water. Practices such as fencing, herding, water development, and the placement of salt and supplements (where authorized) are used where appropriate to:

a) promote livestock distribution;

b) encourage proper grazing throughout the grazing unit:

c) avoid unwanted or damaging concentration of livestock on streambanks, in riparian area and other sensitive areas such as unique wildlife habitats and plant communities; and

d) protect water quality.

NEED FOR PROPOSED ACTION

During the fall of 1997, a 700 foot well was drilled (Supplemental #S-1-26 to programmatic EA. #OR-030-0-44) in the Indian Fort pasture of the Jackies Butte Summer Allotment (#01101). Initial results indicate that over 60 gallons per minute of water production is potentially feasible. The development of this well and associated pipelines/water troughs would supply water to locations where the water dries up in reservoirs and water holes during dry years or during the fall. This project is needed to improve the ability to rotate and defer grazing use in the Indian Fort and Dry Creek Pastures of the Jackies Butte Allotment on an annual basis, in accordance with the existing Jackies Butte AMP (allotment management plan). Also, this project would reduce livestock and wild horse use of traditional watering areas at Hardin Springs and at pools in Dry Creek in the Dry Creek Native Pasture.

The existing Jackies Butte pipeline is fed by Crows Nest Reservoir into three troughs in Dry Creek Native Pasture with the remaining troughs in Indian Fort Pasture. This reservoir loses water through evaporation and sub-surface leakage during drought periods and late in the grazing season (i.e., August and September), consequently rendering the pipeline unuseable during critical periods of water availability, over concentrating livestock on limited water sources (Hardin Springs and Dry Creek) and disrupting grazing rotation. Connecting the Corbin Creek Well to the Jackies Butte pipeline would provide a consistent and dependable water supply to the existing line during periods when the reservoir is dry. In addition, providing a consistent and dependable water source in the Dry Creek Pasture would greatly enhance the Wild Horse Herd Management Area.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

A. PROPOSED ACTION

The proposed action is as follows:

Construct a generator shed (14 X 16 foot) (shed will be painted to blend into the surroundings).

Install two water storage tanks (30,000 gallons each) (tanks will be painted to blend into the surroundings).

Connect the well and pumping mechanism to the already existing Jackies Butte Pipeline (project #4844) and to the new Corbin Creek Pipeline.

Install approximately 25 miles of new pipeline and 14 new troughs.

The pipeline would be constructed using plastic pipe buried 12"-18" deep. The pipeline would be installed using a caterpillar tractor with a ripper tooth on the rear, which has a

specially designed pipe-laying shoe attached. A track hoe would be used on a limited basis to trench to troughs and in difficult terrain. A maximum 18 inch berm would be placed over the pipeline by blading excavated material over the trench. Periodic cross country travel for maintenance purposes would occur along approximately 8.5 miles of the southern pipeline leg, which runs East of Crows Nest Storage Tank ending in the SW 1/4, Sec. 15, T. 34 S., R. 42 E. The remainder of the pipeline would be located along existing roads. The pipeline would be constructed in either cheatgrass or crested wheatgrass seeding areas and not in native rangeland. Disturbed areas would be reseeded with an adapted, perennial, non-native seeding mix to prevent re-infestation of noxious weeds and cheatgrass communities and to green strip the area to reduce the spread of large fires. Follow-up monitoring for noxious weeds would be conducted to prevent any new infestations. Construction would occur at a time that would not interfere with big game hunting seasons. Troughs are expected to hold about 3,000 gallons to insure during times of repair that water is available for cattle, wild horses, and wildlife until repairs are made.

Install wildlife escape ramps in all troughs

B. NO ACTION

Under this alternative the proposed project would not be built.

Other Alternatives Considered But Eliminated From Further Study

There were three other alternatives that were considered but were determined to be too expensive to be considered further or would not meet the need for the proposed action.

Building haul roads to haul water to troughs from main well. This alternative would be very costly. Building the road, maintenance of the road, buying and maintaining the water truck (including the cost of gas), and wages, would be cost prohibitive. It would be doubtful whether enough constant water could be supplied. A maximum truck tank volume would be 5000 gallons and would take 125 minutes to load. Each trough would take 3000 gallons; therefore, twelve loads would be needed three times a day. This would be an ineffective method of delivery. Any problem resulting in a dry tank would be a considerable disturbance for all.

Drilling wells at the troughs locations stated under Alternative A. Putting wells in place of the pipeline would be cost prohibitive. Wells in this area are 700 feet deep or the holes are dry . The cost in 1997 of having a well drilled was $22,000, pumps were $15,000, and a well house was $6,000/facility. Fuel, fuel delivery and cost is also not economical.

Construction of 14 reservoirs at trough locations under Alternative A . A reservoir would be constructed at each trough site; 14 in all. This alternative would not work because there are not suitable sites at these trough locations. Reservoirs located at trough

sites would have no possibility of being reliable and would not last all season long. This alternative would not meet the need for the proposed action.

AFFECTED ENVIRONMENT

The Jackies Butte Summer Allotment (#01101) is bounded on the north and east by the Owyhee Wild and Scenic River canyon, on the west by Crooked Creek and Rattlesnake Creek, and on the southeast by the Ambrose-Maher allotment. The majority of the allotment consists of gently rolling hills and ridges interrupted occasionally by lava outcroppings and rimrocks. There are two prominent topographic landmarks in the unit - Grassy Mountain, elevation 5445 feet and Jackies Butte, elevation 4380 feet. The elevation of the unit rises gradually from northwest to southeast; the elevation at Rome in the northwest part of the unit is 3450 feet as contrasted to an average elevations of 4800 feet in the eastern part of the unit.

Average precipitation varies from 6 inches in the western part of the unit to 11 inches in the eastern part. Relatively low elevation of the prominent landmarks contribute to the lack of snowpack for runoff. The Dry Creek drainage is the major water course within the unit draining approximately 70% of the entire area. The remaining drainage is directly into the Owyhee River, Crooked Creek, and Rattlesnake Creek. All drainages eventually terminate in the Owyhee River. The low gradient of the drainage and relatively low precipitation account for relatively stable watershed conditions throughout the unit.

1. Vegetation

The Jackies Butte allotment lies within a broad regional landform and vegetation classification known as the Intermountain Sagebrush Province/Sagebrush Steppe Ecosystem. The most dominant plant species on the landscape was Wyoming big sagebrush (Artemisia tridentata ssp. wyomingensis). Sandberg bluegrass (Poa secunda), bottlebrush squirreltail (Sitanion hystrix), and bluebunch wheatgrass (Agropyron spicatum).

Shrub/annual grassland communities are the product of past grazing disturbance where cheatgrass and other annuals have replaced the perennial bunchgrass component of the sagebrush/bunchgrass community. The utilization of forage has been dependent on water supply. The fire frequency incident (FFI) is 3.4 years for fires larger than 15,000 acres in the Dry Creek and 4.2 years in the Indian Fort Pasture. Increased fire frequency, supported by heavy loading of fine fuels, has resulted in areas dominated by annual grasslands with little or no shrub component. Fire rehabilitation seeding of crested wheatgrass and other introduced perennial species, with varying amounts of sagebrush and other shrub over story, have been completed to rehabilitate and stabilize some low seral sagebrush/bunchgrass communities. The Anative@ sagebrush/bunchgrass communities occupies areas of varying distance from the pipeline. These communities are at various seral stages ranging from early seral (mostly cheatgrass and some sparse bluegrass interspersed) to mid-seral (bluebunch wheatgrass, squirreltail, and bluegrass with cheatgrass interspersed). The closest mid-seral range would be about 1/4 mile south of the western most trough. Late seral native range is not known to be near any trough locations.

2. Soils
Soils in this area are delineated into two soil groups (Unit 75 and Unit 55) which are well drained, loamy gravel to gravelly sandy loams, respectively. Predominantly, these soil types are gently sloping (3-12%) and are loamy, shallow, very stony over basalt, rhyolite, or welded tuff. They occur on gently undulating to rolling lava plateaus. Hardpans can be found in swells with heavier soils (i.e., Unit 55 soils).

3. Noxious Weeds
Scotch thistle (Onopordum acanthium), an aggressive biennial, exists on about 300 acres approximately 1/4 mile north of Caviatta Ridge. The population has about 2,500 individual plants and was chemically treated during the spring of 2000. It is expected to respond to treatment. No other noxious weeds are known to exist in the pipeline area.

4. Livestock
The Jackies Butte Summer Allotment (M category) has nine permittees authorized to graze 15,645 AUMs (animal unit months). The allotment contains 9 pastures covering 209,454 Public Land acres. Currently, livestock water in Indian Fort, Dry Creek, and Eastside pastures is primarily supplied by runoff into reservoirs and in drainages. If snowpack is below normal, water requirements for livestock are not met.

5. Wildlife
The proposed pipeline lies within year long mule deer and pronghorn antelope range. Common small mammals and reptiles which inhabit the area include, coyote, badger, ground squirrel, chipmunk, whiptail lizard, sagebrush lizard, gopher snake, and western rattlesnake. Common songbirds and raptors include horned larks, meadowlarks, ravens, red-tailed hawks, rock wrens, and burrowing owls. Due to frequent fires that have impacted shrub overstory conditions over the last few decades and the presence of vigorous crested wheatgrass seedings with little or no shrub cover, much of the allotment currently exhibits large blocks of fragmented sagebrush steppe habitat with a grassland aspect. These large grassland blocks provide favorable conditions for species such as pronghorn and horned larks but they offer limited or no value for forage, cover, and structure needed by a variety of animals that use sagebrush habitats. Jackies Butte ranks among the top few most fragmented Geographic Management Areas (GMA) found within the Jordan Resource Area.

Where remaining intact sagebrush habitats are present, sage grouse occupancy within the Jackies Butte GMA and Allotment occurs on a year-long basis so winter and breeding habitat needs are issues of importance for the species. Field surveys from 1998 and 1999 indicate that there are at least 12 sage grouse leks in the Jackies Butte GMA, most of which (8) are concentrated within upper elevation rangelands near Grassy Mountain and points southeast of Grassy Mountain. These 8 leks are at least 12 miles to the east of the proposed pipeline area. Remaining leks are widely scattered to the west at lower elevations.

In terms overall of sage grouse productivity, Jackies Butte GMA is ranked among the bottom 1/3 of all the GMA's within Malheur County. A combination of factors probably contribute towards this condition including the numerous fires that have reduced habitat connectivity and the dry, low elevation aspect prevalent within much of the area.

The proposed pipeline is located within 3/4 of a mile of the Bull Creek Lek (GIS_ID # 399) which is situated in section 16, Township 35S, Range 42E. According to BLM records male attendance at this lek was 11 birds in 1998 and 22 birds in 1999. Based on all of the available data from lek counts since 1985, the Bull Creek Lek is average in its relative size and significance for the species; e.g., an average sized lek in Malheur County supports around 10 to 20 birds.

6. Threatened or Endangered Species.
There are no Threatened or Endangered plant or animal species listed under the Endangered Species Act in the proposed pipeline area. There are no special status plant species known in the area.

7. Recreation and Visual Resources.
Dispersed outdoor recreation in the proposed pipeline area consists primarily of hunting of upland birds and big game animals. Some dispersed general sightseeing, day hiking and off highway vehicle (OHV) use may occur. The pipeline is within a visual resource management class IV area, with low visual sensitivity and a low (class C) scenic quality rating.

8. Cultural Resources
Several archaeological excavations have generated information that establishes long-term human occupation in Malheur and Harney Counties. Excavations at five stratified spring sites indicate that prehistoric people occupied southeast Oregon from about 11,000 to 150 years ago. An excavation at the Dirty Shame rockshelter, on a tributary of the Owyhee River, documented occupation of the shelter from 9500 to 400 years ago.

Due to a number of fires that have occurred in past years, numerous archaeological surveys have been conducted in the vicinity of the project area. Duane Marti of the BLM inventoried a 52,000 acre burn known as the 1983 Indian Fort Fire. Three sites and four isolated finds were located during the survey. In 1995, Alice Bronsdon of the BLM inventoried a 13,272 acre burn, also known as the Indian Fort Fire. No cultural materials were recorded. In 1995, Alice Bronsdon conducted an inventory of a 16,000 acre burn known as the Battle Creek Fire. No cultural materials were located during the inventory. Marnie Wilson of the BLM surveyed an 18,158 acre burn known as the White Mule Fire. Three isolated finds were recorded. A number of project driven archaeological surveys have been conducted in the area. In 1990, Angel Dawson of the BLM conducted a survey for the Tree Spring Pipeline. No cultural materials were located. Diane Pritchard of the BLM conducted an inventory in 1991 as part of a right-of-way issuance for the Grassy Butte Remote Area Weather Station. No cultural materials were located during the survey. The Garlow Butte Community Pit was inventoried by Natalie Sudman of the BLM

in 1992. A total of 21.1 acres were surveyed, and no cultural materials were located. In 1994, Natalie Sudman conducted an inventory for the Corbin Creek Well.
No cultural resources were recorded. The entire pipeline route was inventoried in August and November of 2001 and no cultural sites were found.

8. Wild Horses
The Herd Management Area in Jackies Butte is Dry Creek and since 1971 horses have found their favorite location to be Jackies Butte and rocky outcropping on the Dry Creek Flat. 12 miles of the new proposed pipeline lies within the Jackies Butte Herd Management Area. Emergency gathers to protect the health of wild horses have been required in the past due to a lack of water and wildfire eliminating forage for the season.

9. Other Mandatory Elements
The following mandatory elements are either not present or would not be affected by the proposed action or alternatives:

Critical Elements	**YES**	**NO**
Air Quality		X
ACECs		X
Cultural Resources		X (based on inventory)
Farmlands, Prime/Unique		X
Flood plains		X
Nat.Amer.Rel. Concerns		X
T&E Species		X
Wastes, Hazardous/Solid		X
Water Quality (surface and ground)		X
Wetlands/Riparian Zones		X
Wild & Scenic Rivers		X
Wilderness		X
Invasive, Nonnative species	X	
Environmental Justice		X

ENVIRONMENTAL CONSEQUENCES (Preferred Proposed Action)

1. Vegetation

Construction of the proposed pipeline would result in surface disturbance on an area approximately 4.5 feet wide. The length of surface disturbance would be 133,000 feet long, or 594,000 sq feet for a total of 13.6 acres. The placement of each trough would result in the surface disturbance (including trampling effects) of an area of about 50 feet by 50 feet or approximately 0.057 acres times 14 troughs, for a total of 0.8 acres. Overall vegetation condition is expected to be maintained or improved throughout the pastures, due to better distribution of existing livestock grazing use across the pastures, avoiding major concentration areas. Vegetated areas near traditional watering areas, such as Hardin Springs and Dry Creek, would be expected to improve from the reduced dependence on water for livestock grazing at these areas, thus reducing livestock impacts on the vegetation near these areas. Grazing utilization in the vicinity of the new troughs will be heavier than what is occurring now but utilization will be lighter in other parts of the Dry Creek and the Indian Fort pastures. The increased grazing use near these troughs will be predominantly on non-native seedings and cheatgrass ranges. Native vegetation should not be substantially affected as it is not adjacent to the new troughs. The western most trough, in Sec. 29, is within about 1/4 mile of some mid-seral native range that lies south of the east-west running winter range road. Grazing use is expected to increase in this area near the new trough, however, impacts within this area are expected to be minimal since livestock will not be concentrated a 1/4 mile from the trough. Periodic deferment under the existing allotment management plan, until after the critical growing season, would allow growing season rest for non-native and native perennial plants. This would improve perennial grass health and vigor which should help improve resource conditions in these pastures and reduce cheatgrass domination. In the past, water availability has periodically precluded late season grazing in this area.

Construction of the proposed pipeline would result in surface disturbance of the area on both sides of the constructed area. These disturbed areas would be seeded with a adapted, perennial, non-native seeding mixture that would provide a green strip to aid in fire control and to prevent the spread of large fires. Within two-five years the seeded vegetation is expected to occupy the disturbed area where the pipeline is located.

2. Soils

Bare soil would be exposed where the pipeline is laid until the seeding rehabilitation or other vegetation occupies the site. Soils adjacent to troughs would be expected to be impacted by the concentrated livestock use which would remove existing vegetation from the immediate area of the trough. However, other traditional watering areas in these pastures would be expected to receive less livestock use as the livestock would be more distributed across the seeded and cheatgrass areas of the pastures. Soil loss in the immediate areas, impacted by the pipeline laying or the troughs, would be minimal and primarily from wind erosion as the area is relatively flat. Acreage disturbed would be similar to that depicted under vegetation above.

3. Noxious Weeds

The disturbance of the pipeline construction could provide a seedbed for Scotch thistle . To prevent such occurrence the construction area would be reseeded to perennial species. The perennial species would help prevent the spread and takeover of the site by noxious weeds and invasion of cheatgrass communities. Follow up monitoring for noxious weeds would prevent any new noxious weed infestations.

4. Livestock Grazing

The proposed project would benefit livestock by providing water during the whole grazing season regardless of whether it was a dry year. Improved quantity and quality of water supply would be beneficial to the health of livestock. This would reduce concentrations of livestock at existing water sources like Hardin Springs and Dry Creek pools, in the Dry Creek Pasture, and at various reservoirs in the two pastures. Reducing livestock concentrations would benefit animal health. In the long term, positive benefits to livestock operators would occur due to the establishment of more reliable perennial water, making the existing forage base more available and stable from year to year.

This project would directly impact Indian Fort Pasture, and Dry Creek Pasture which are 58% of the allotment. The project would indirectly impact grazing distribution and utilization over the entire allotment because it would supply a consistent and dependable water source late in the grazing season or during drought periods, thus allowing greater flexibility in pasture rotation and deferment, as envisioned under the existing AMP. Flexibility in season of use by pasture, or use area within a pasture, would provide the vehicle for application of best management practices to maintain and improve vegetative condition.

5. Wildlife

The proposed pipeline and water troughs would be set within grassland habitats that would be likely to sustain little or no use by sage grouse. Moreover, the highest concentration of leks to the east would be avoided by the development altogether. Consequently, impacts to sage grouse nesting habitat around leks in the Jackies Butte allotment would be avoided.

The trough in the NW region of section 16, T35S R41E would be expected to result in some adverse impact to sage grouse nesting habitat within 2 to 3 miles of the lek. This outcome would be the result of more consistent livestock grazing use because a new reliable water source for livestock is being provided. Tall standing grass cover, especially species such as bluebunch wheatgrass, is associated with successful sage grouse nesting because it contributes towards lateral and overhead nesting cover as well as a scent barrier to potential predators. Grazing reduces this cover. However, the troughs are located in cheatgrass areas, and away from native ranges, so livestock use would have minor impacts on standing bluebunch wheatgrass cover.

Due to the limited effects of the proposed action on sage grouse nesting habitat, the proposed action is considered to be consistent with the spirit and intent of the OR/WA Interim Guidelines for sage grouse habitat management.

Reliable water would be available for pronghorn and other terrestrial wildlife species in locations where it has not been in the past. Pronghorn would be the primary beneficiaries of new water. Generally speaking, Malheur County is well watered for indigenous wildlife so it is unlikely that the positive impacts of water availability for other species including mule deer and non-game animals would amount to anything of significance.

Installation of escape ramps within new troughs would be expected to prevent most instances of small wildlife drowning and entrapment.

6. Threatened or Endangered Wildlife Species
Threatened or Endangered plant or wildlife species are not known to exist in the project area.

7. Recreation and Visual Resources
The proposed pipeline system would disperse big game animals during game seasons. Better distribution of livestock grazing would visually improve those areas traditionally used for livestock watering (Hardin Springs and existing reservoirs). The pipeline and troughs would visually intrude in the project area, however, the project area is cheatgrass and crested wheatgrass seedings which are already visually impaired. A possible benefit may be provided for hunters of game animals and birds by the troughs attracting hunted species for watering (deer, antelope, sage grouse, dove).

8. Cultural Resources.
In accordance with 36CFR800, the Jordan Resource Area Archeologist will conduct a files search and a Class III cultural resource inventory prior to the onset of surface disturbing activities to determine if the proposed action would have an effect on cultural resources. If cultural resources are located during the survey, the project will be moved to avoid the cultural resource, or reevaluated if relocation is not possible.

9. Wild Horses
Currently, grazing distribution patterns are poor due to a lack of water. The proposed pipeline would contribute to maintaining a stable wild horse herd by providing a permanent water source during the spring, summer and fall. This project would eliminate the need to gather horses due to a lack of the water necessary to maintain the herd in a healthy condition.

B. NO ACTION

1. Vegetation.
Vegetation would remain the same and continue to receive heavy use near existing water sources. Poor distribution would continue to put grazing pressure on vegetation in the traditional watering areas in dry years. Rotation grazing systems designed to give relief to vegetation from livestock grazing use would be very difficult to implement due to the lack of late season water.

2. Noxious weeds.
Noxious weed would not change from the present condition.

3. Livestock Grazing
Livestock would continue to have heavy utilization on the present waters and poor distribution of cattle due to the lack of water. Water would be lacking or not available in dry years. Late season waters in reservoirs are often poor, overly alkaline and can contribute to animal health conditions that are difficult to treat.

4. Wildlife
The present situation would remain the same. Wildlife would continue to congregate at water holes in dry years.

5. Threatened or Endangered wildlife species
Same as proposed action.

6. Recreation and Visual Resources
Impacts to dispersed recreation activities would remain the same as it is now.

7. Cultural Resources
There would be no effect to cultural resources as a result of the no action alternative.

8. Wild Horses
The wild horses would not be affected because the pipeline would not be constructed. The horses would continue to have a shortage of water on dry years. Quantity and quality of water supply would continue to be a problem.

DESCRIPTION OF MITIGATION MEASURES AND RESIDUAL IMPACTS

As noted above, the pipeline or trough locations would be relocated to avoid cultural and T& E plant resources if found.

The berm over the pipeline trench shall be sufficient in height to allow for settlement and shall not exceed 18" in height immediately post construction.

Storage tank, pipeline, and water troughs will be filled prior to grazing livestock in the Dry Creek Pasture or by June 1 of each year that Dry Creek Pasture is under spring deferment. The system shall remain full until the end of the grazing season (October 31) for wildfire, wildlife and wild horse use.

Noxious weed monitoring will be increased to insure the project does not increase the spread of weeds. Noxious weeds found will be eradicated.

PERSONS/AGENCIES CONSULTED

Dean Durfee - Range Consultant - initial preparer.
Jackies Butte Permittees.
Oregon Natural Desert Association - Commented on draft.
Committee for Idaho High Deserts - Commented on draft.
Western Watersheds Project.
Oregon Watershed Enhancement Board –funding.
Malheur County Soil and Water Conservation
District – Jennifer Fenwick.
ODF&W Walt Van Dyke.

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